

Overload relay 50...200 A for motor protection Size S6, Class 10E Contactor mounting/stand-alone installation Main circuit: straight-through transformer Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset



product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB2
<b>General technical data</b>	
size of overload relay	S6
size of contactor can be combined company-specific	S6
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
maximum permissible voltage for protective separation	
<ul style="list-style-type: none"> <li>in networks with ungrounded star point between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul style="list-style-type: none"> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul style="list-style-type: none"> <li>in networks with ungrounded star point between main and auxiliary circuit</li> </ul>	600 V
<ul style="list-style-type: none"> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	690 V
shock resistance	15g / 11 ms
<ul style="list-style-type: none"> <li>according to IEC 60068-2-27</li> </ul>	15g / 11 ms
vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s <sup>2</sup> ; 10 cycles
thermal current	200 A
recovery time after overload trip	
<ul style="list-style-type: none"> <li>with automatic reset typical</li> </ul>	3 min
<ul style="list-style-type: none"> <li>with remote-reset</li> </ul>	0 min
<ul style="list-style-type: none"> <li>with manual reset</li> </ul>	0 min
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	07/01/2006
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1
Weight	0.694 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> <li>during operation</li> </ul>	-25 ... +60 °C
<ul style="list-style-type: none"> <li>during storage</li> </ul>	-40 ... +80 °C
<ul style="list-style-type: none"> <li>during transport</li> </ul>	-40 ... +80 °C
temperature compensation	-25 ... +60 °C
relative humidity during operation	10 ... 95 %
<b>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-	50 ... 200 A

<b>dependent overload release</b>	
<b>operating voltage</b>	
• rated value	1 000 V
• at AC-3e rated value maximum	1 000 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	200 A
operational current at AC-3e at 400 V rated value	200 A
<b>operating power</b>	
• for 3-phase motors at 400 V at 50 Hz	30 ... 90 kW
• for AC motors at 500 V at 50 Hz	30 ... 132 kW
• for AC motors at 690 V at 50 Hz	55 ... 160 kW
<b>Auxiliary circuit</b>	
<b>design of the auxiliary switch</b>	integrated
<b>number of NC contacts for auxiliary contacts</b>	1
• note	for contactor disconnection
<b>number of NO contacts for auxiliary contacts</b>	1
• note	for message "tripped"
number of CO contacts for auxiliary contacts	0
<b>operational current of auxiliary contacts at AC-15</b>	
• at 24 V	4 A
• at 110 V	4 A
• at 120 V	4 A
• at 125 V	4 A
• at 230 V	3 A
<b>operational current of auxiliary contacts at DC-13</b>	
• at 24 V	2 A
• at 60 V	0.55 A
• at 110 V	0.3 A
• at 125 V	0.3 A
• at 220 V	0.11 A
<b>Protective and monitoring functions</b>	
<b>trip class</b>	CLASS 10E
<b>design of the overload release</b>	electronic
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
• at 480 V rated value	200 A
• at 600 V rated value	200 A
<b>contact rating of auxiliary contacts according to UL</b>	B600 / R300
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 355 A, Class L: 601 A
— with type of coordination 2 required	gG: 315 A
• for short-circuit protection of the auxiliary switch required	fuse gG: 6 A
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	Contactors mounting/stand-alone installation
<b>height</b>	119 mm
<b>width</b>	120 mm
<b>depth</b>	155 mm
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	
• for main current circuit	straight-through transformers
• for auxiliary and control circuit	spring-loaded terminals
<b>arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— solid	2x (0.25 ... 1.5 mm <sup>2</sup> )

— solid or stranded	2x (0,25 ... 1,5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0,25 ... 1,5 mm <sup>2</sup> )
— finely stranded without core end processing	2x (0,25 ... 1,5 mm <sup>2</sup> )
• for AWG cables for auxiliary contacts	2x (24 ... 16)

<b>Electrical Safety</b>	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
<b>Communication/ Protocol</b>	
type of voltage supply via input/output link master	No
<b>Electromagnetic compatibility</b>	
conducted interference	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> <li>• due to high-frequency radiation according to IEC 61000-4-6</li> </ul>	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3 2 kV (line to earth) corresponds to degree of severity 3 1 kV (line to line) corresponds to degree of severity 3  10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
<b>Display</b>	
display version for switching status	Slide switch
<b>Approvals Certificates</b>	
General Product Approval	EMV



EMV	For use in hazardous locations	Test Certificates	Maritime application
<a href="#">KC</a>	ATEX	<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>
		ABS	DNV
Maritime application	other	Environment	
LRS	RINA	产品合格 QC PASS	<a href="#">Confirmation</a> <a href="#">Miscellaneous</a> <a href="#">Environmental Confirmations</a>

<b>Further information</b>
<p>Information on the packaging  <a href="https://support.industry.siemens.com/cs/ww/en/view/109813875">https://support.industry.siemens.com/cs/ww/en/view/109813875</a></p> <p>Information for data generation and storage  <a href="https://support.industry.siemens.com/cs/ww/en/view/109995012">https://support.industry.siemens.com/cs/ww/en/view/109995012</a></p> <p>Information- and Downloadcenter (Catalogs, Brochures,...)  <a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a></p> <p>Industry Mall (Online ordering system)  <a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RB2056-1FX2">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RB2056-1FX2</a></p> <p>Cax online generator  <a href="https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RB2056-1FX2">https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RB2056-1FX2</a></p> <p>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)  <a href="https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FX2">https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FX2</a></p> <p>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)  <a href="https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2056-1FX2&amp;lang=en">https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2056-1FX2&amp;lang=en</a></p> <p>Characteristic: Tripping characteristics, I<sup>t</sup>, Let-through current  <a href="https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FX2/char">https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FX2/char</a></p> <p>Further characteristics (e.g. electrical endurance, switching frequency)  <a href="https://www.automation.siemens.com/bilddb/index.aspx?view=Search&amp;mlfb=3RB2056-1FX2&amp;objecttype=14&amp;gridview=view1">https://www.automation.siemens.com/bilddb/index.aspx?view=Search&amp;mlfb=3RB2056-1FX2&amp;objecttype=14&amp;gridview=view1</a></p>



